## REMARKS

Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Upon entry of the above amended and new claims, claims 1-14 will be pending. In view of the characterization of the pending claims as indefinite, claims 1, 5 and 8 are amended to delete the reference to "an object"; insert a reference to "at least one non-sealing member" and other minor grammatical changes not intended to change the meaning or scope of the original claims. For additional clarity and emphasis, the sealing or connecting member is further described as "thermoplastic" as described throughout the specification and consistent with the fabrication thereof from thermoplastic elastomer.

Steps (b) in claims 5 and 8 are amended to include the omitted reference to "component." Claim 9 has been corrected to depend from claim 6, rather than from claim 5.

Claims 13 and 14 are concerned with the embodiment wherein the thermoplastic elastomer comprises a block copolymer having hard block segment as described on page 2 of the specification.

Accordingly, no new matter is introduced by the amended or new claims.

The acknowledgement of receipt of the certified copies of the priority document is appreciated.

The return of the initialed and dated Form PTO-1449 is also acknowledged with appreciation.

The rejection of claims 1, 2, 5, 7-9, 11 and 12, under 35 U.S.C. §112, second paragraph, as being indefinite, is addressed and overcome by the presentation of the amended claims.

The rejection of claims 3, 6 and 9, under 35 U.S.C. §102(b), as anticipated by Stewing, DE 35 23 771 A1, (DE 771), is respectfully traversed for at least the following reasons.

Since the English Abstract of DE 771 does not describe a sealing or connecting member obtained by molding a thermoplastic elastomeric material (which is subsequently stretched and relaxed at ambient temperature), the Abstract does not provide evidence that the subject matters of claims 3, 6 and 9, were not novel at the time this application was filed. Similarly, the drawings of DE 771 do not reveal the nature of the material of the titled "heat-shrinkable tube" nor the nature of the thermoplastic. Accordingly, the drawings of DE 771 do not provide evidence supporting a rejection under 35 U.S.C. §102(b).

Accordingly, to help understand the disclosure of DE 771, Applicants have prepared the following translation of the "Description" of this document:

> "The invention relates to a process for manufacturing heat-shrink sleeves of a thermoplastic material for connection- and branch shrink-sleeves for cables, in particular telephone cables, after which the plastic material is cross-linked, stretched, and coated with an adhesive and a 'thermocolor.'
>
> Such a process for making heat-shrink sleeves is known, wherein firstly, a film is made by continuous extrusion and subsequently cross-linked, either by irradiation or heat treatment. After cross-linking, the film is made into a required size in a stretching step. Subsequent to the stretching step, the film is provided with an adhesive-layer and a thermocolor-layer. Thereafter, the heat-shrink sleeves being made are printed and squared. Such a process is relatively expensive and uneconomic, because it requires separate steps in which an extruder, radiation equipment, and a stretching unit are applied.
>
> It is the object of the invention to provide a process and an apparatus, which enable a rational and economical, and thus inexpensive manufacturing of heat-shrink sleeves of a thermoplastic material.
>
> In order to solve this problem, the invention proposes in a typical process that the heat-shrink sleeves are injection-molded as individual parts and are cross-linked while still in the mold, that the individual parts are subsequently stretched to a predetermined sleeve size while cooling but still utilising their molding heat. The present invention teaches –so to speak– to injection-mold, cross-link and stretch the heat-shrink sleeves in a single operation, .... Cross-linking of individual parts still in the mold is performed with peroxides/chemicals....
>
> ....
>
> The invention further concerns an injection-molding apparatus with ...."
>
> (Column 2).

The following text in columns 2-4 merely provides a detailed description of injection-molding equipment ("Spritzgußmachine") but no further information on the sleeve, itself, or materials therefor.

Accordingly, the entire disclosure of DE 771 fails to provide evidence to disprove the novelty of the claimed subject matter set forth in claims 3, 6 and 9.

First, there is no mention of a thermoplastic elastomeric material as recited in each of the rejected claims.

Second, the shrink-sleeve obtained by the process described in DE 771 is not a "thermoplastic" component but is, instead, a "thermoset" (cross-linked) component.

Third, there is no disclosure that the molded and stretched component is relaxed at ambient temperature. (Even if Fig. 6, does somehow show the molded, stretched sleeve to be "relaxed" this figure does not show that the relaxation occurs at ambient temperature. In fact, it may be supposed that a "heat-shrink" tube would not "relax" at ambient temperature.)

Accordingly, it is respectfully submitted that, for at least the foregoing reasons, claims 3, 6 and 9 are not anticipated by DE 771 and these claims should be allowed.

For substantially the same reasons, the remaining claims would not have been *prima facie* obvious over DE 771, alone, or in view of the secondarily applied references.

Thus, the rejection applied to claims 1 and 7 as unpatentably obvious over DE 771 in view of Danico, US 4,560,083, is respectfully traversed for at least the following reasons.

Please refer to the above for a detailed discussion of the disclosure of DE 771. Briefly, this document relates to a pre-stretched sealing member, particularly, a shrink sleeve for application in connections and branches in (telephone) cables. Although no details of particular materials for the sleeve are provided, it is disclosed that the sleeve material is cross-linkable and cross-linked in the mold with peroxides or other chemicals.

The materials described as suitable for the gaskets to which Danico is concerned are also cross-linkable and cross-linked.

In particular, Danico relates to a flat annular sealing member or gasket. The gasket is constructed of a material that has elastomeric properties and foams or expands when heated. For that purpose, the gasket material contains a conventional chemical blowing agent or physical blowing agent. The material foams and undergoes considerable permanent volumetric expansion, i.e., between 75% and 150%, when exposed to elevated temperatures. (*See*, col. 4, lines 42-48.)

It is also preferred that the gasket material undergoes gradual cross-linking during exposure to elevated temperatures, thereby providing a slowly increasing melting point and resistance to flow. (*See,* col. 4, lines 53-56.)

Suitable general types of gasket materials are described in column 4, beginning on line 63.

It is respectfully submitted that one skilled in the art would not have been motivated by Danico to modify DE 771 but even if so modified, the combined disclosures would not lead to the present invention.

There would not be motivation to combine in view of the dramatically different natures of the respective "sealing" members. The "sealing" member of DE 771 is a **shrink**-tube. The "sealing" member of Danico is an **expandable/foaming** gasket. Clearly, these two devices operate on totally different principles such that one skilled in the art would not have been motivated to combine the respective teachings.

The combined disclosures would not result in the claimed subject matter. For example, neither reference, discloses relaxing a stretched thermoplastic elastomeric component at ambient temperature. There is no stretching involved in Danico. In DE 771, even if Figure 6 does suggest "relaxation" (which is not admitted) there is no evidence that it is taking place at "ambient" temperature. not in claim The assertion that the sleeve is no longer being heated cannot be determined from Fig. 6 but, even if additional heat is not being added, this does not equate to "ambient" temperature (described in the specification as normally related to a temperature from -40 to 60 °C, *see*, page 3, lines 15-17), nor evidence "relaxation" or shrinkage.

DE 771 also fails to disclose or suggest the step of "exposing said members from step (c) to an increased temperature of at most about 20 °C below the melting temperature of the thermoplastic elastomeric material."

First, as explained above, there is no disclosure in DE 771 of thermoplastic elastomeric material.

Second, there is no disclosure of exposing the members (shrink-tube and non-sealing member) to an increased temperature. However, even if an increased temperature is considered implicit, there is no evidence that the temperature to effect shrinkage is "at most about 20 °C below the melting point" of the shrink-tube material. In this regard, noting that the material has previously been cross-linked, the "melting" temperature would most likely no longer exist, since, by definition, a thermoset (cross-linked) resin is not softened or melted by reheating.

Danico would not motivate the practitioner to modify the disclosure of DE 771 to lead to the presently claimed subject matter. As noted above, the process of Danico involves foaming/expanding the "sealing" member and to do this the member is necessarily heated to a temperature above the melting point. Otherwise, the material would not soften/flow and foaming and expansion would not be expected to occur.

Accordingly, for at least the above reasons, claims 1 and 7 would not have been *prima facie* obvious over DE 771 in view of Danico.

The rejection of claim 2, over DE 771 and Danico, in further view of Schultze et al, US 6,001,464 ("Schultze") is respectfully traversed for at least the following reasons.

Nothing in the disclosure of Schultze even remotely suggests that the thermoplastic copolyetherester elastomers are suitable cross-linkable materials for the process of DE 771. For example, the shrink tubes of DE 771, which are used in telecommunications, would not desireably be formed from water vapor permeable or breathable films, as in the case of Schultze' materials.

One skilled in the art looking to improve upon the materials used to make shrink-tube sealing members for applications in the telecommunications industry would certainly not be motivated to look to the disclosure of Schultze, concerning water vapor permeable breathable films for use in textiles, health care and sanitary fields.

Accordingly, the rejection of claim 2 is respectfully traversed.

For substantially the same reasons as given above, the rejection of claim 4 over the combination of DE 771 in view of Schultze is respectfuly traversed.

The rejection of claims 5, 9 and 11, under 35 U.S.C. §103(a), over DE 771 in view of Danico is respectfully traversed for substantially the same reasons as discussed above in connection with the rejections of claims 1 and 3.

The rejection of claims 8 and 12, under 35 U.S.C. §103(a), over DE 771, Schultze and Danico is respectfully traversed for at least the same reasons as set forth above.

Generally, given the purpose of heating in Danico to cause foaming and expansion, it is not seen why one skilled in the art would have been motivated to turn to Danico as relevant to the use of the heat shrink-tube of DE 771.

In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Attached is a marked-up version of the changes made to the specification and claims by the current amendment. The attached Appendix is captioned **"Version with markings to show changes made"**.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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Enclosure: Appendix

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

1. (Twice Amended) A process for [**the**] fashioning [**of**] a permanent connection between at least 2 components [**of an object, with**], at least one *of said* components *being a thermoplastic sealing or connecting member* obtained by [**moulding of**] *molding* a thermoplastic elastomeric material, *at least one other component being a non-sealing member, said permanent connection being located at a desired location of said non-sealing member,* comprising:

a. stretching said [**one component of thermoplastic elastomeric material**] *sealing or connecting member*;

b. relaxing said [**one component subjected to**] *stretched member from* step (a) at ambient temperature;

c. placing said [**one component obtained in**] *member from* step (b) at the *desired* location [**desired in the object**] *on said non-sealing member*; *and*

d. exposing said [**one object**] *members from step (c)* to an increased temperature of at most about 20 °C below the melting point of the thermoplastic [**elastomer**] *elastomeric material*.

3. (Twice Amended) A thermoplastic sealing or connecting component for the fashioning of a permanent connection, obtained by a process comprising:

a. *molding* [**moulding**] the component from a thermoplastic elastomeric material;

b. stretching the component;

c. relaxing the component at ambient temperature.

5. (Twice Amended) A process for [the] fashioning [of] a permanent connection between at least 2 components [of an object,] with at least one thermoplastic sealing or connecting component according to claim 3, and at least one non-sealing member, comprising:

a. placing said thermoplastic sealing or connecting component at the location of the desired connection [in the object] on said non-sealing member; and

b. exposing said thermoplastic sealing or connecting component to an increased temperature of at most about 20 °C below the melting point of the thermoplastic [**elastomer**] *elastomeric material*.

6. A thermoplastic sealing or connecting component according to claim 3, selected from body plugs, gasket rings, sealing rings, or shrink-on sleevings.

8. (Twice Amended) A process for [**the**] fashioning [**of**] a permanent connection between at least 2 components [of an object], with at least one thermoplastic sealing or connecting component according to claim 4, and at least one non-sealing member, comprising:

a. placing said thermoplastic sealing or connecting component at the location of the desired connection [in the object] on said non-sealing member;

b. exposing said thermoplastic sealing or connecting component to an increased temperature of at most about 20 °C below the melting point of the thermoplastic [**elastomer**] *elastomeric material*.

9. (Amended) A thermoplastic sealing or connecting component according to claim [5] 6, selected from body plugs, gasket rings, sealing rings, or shrink-on sleevings.

End of Appendix